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Conservation and Culture:

The Soil Conservation Service, Social Science, and Conservation on Tribal Lands in the Southwest

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The Soil Conservation Service, Social Science and Conservation on Tribal Land in the Southwest, 1934-1994

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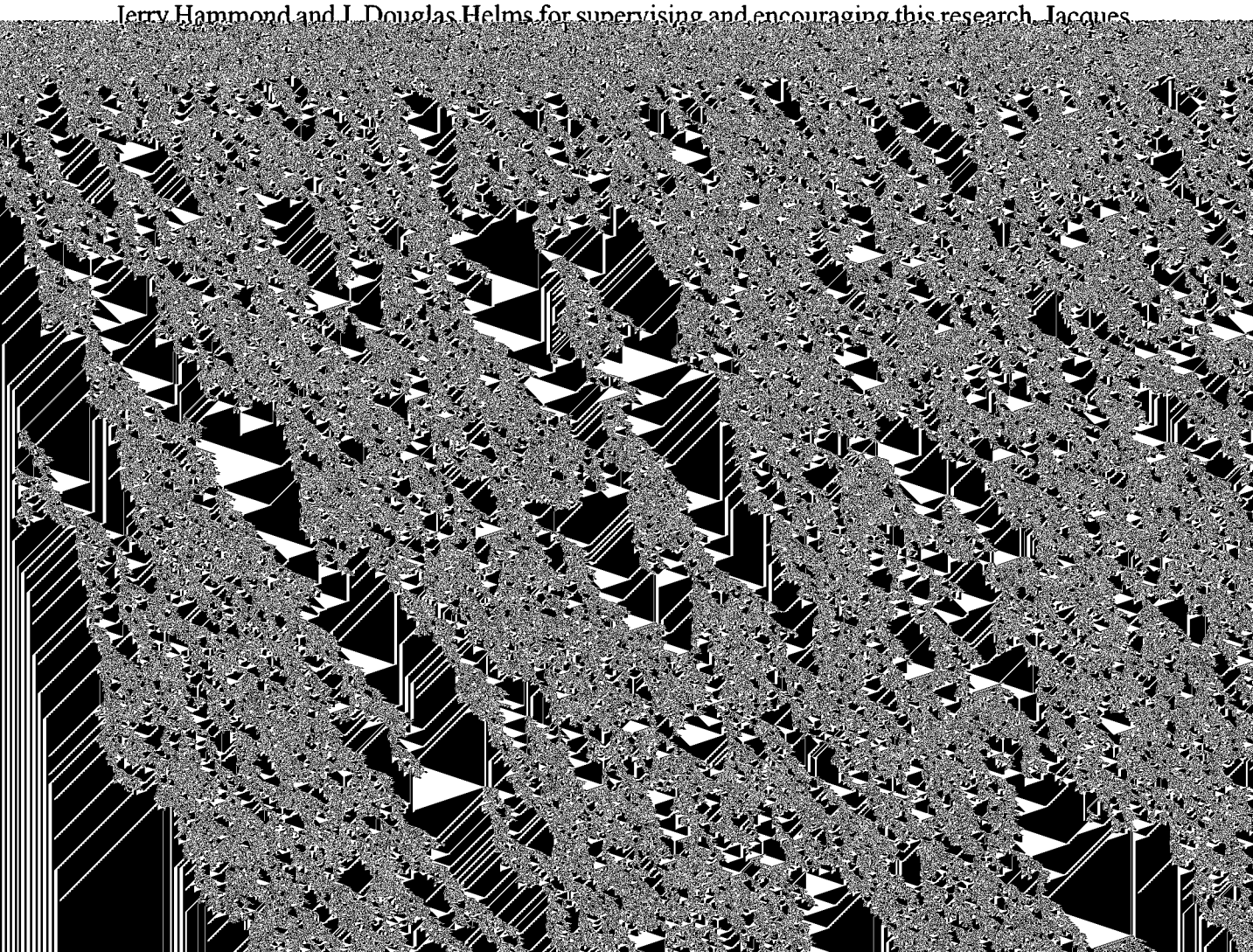
Preface

In late September 1995, I had the opportunity to visit some of the American Indian reservations in Arizona which this paper discusses and to meet with some of the people who work on and with the land in those areas. The Navajo Nation is one of the most beautiful places I have seen. From the piñon forests to the Painted Desert, to the red mesas and vast, seemingly endless plains of grass that stretch from horizon to horizon, it is a land of great extremes and great diversity. Canyon de Chelly, one of the most popular tourist destinations in the Nation, is not only an archeological and historic site, but also the home of Navajo families who still farm the once-fertile canyon bottom. The Canyon was the site of one of the Soil Erosion Service's early experiments: in the early 1930's, Spanish olive trees were planted in the canyon bottom to halt to erosion during the regular floods. The olive trees did slow erosion, but they also began to take over the Canyon, overwhelming indigenous plants and trees and encroaching on the Navajo farms. Eventually, the trees performed their job so well that they significantly lowered the water table in the Canyon; this reduced the flood hazard but also made farming and living in the Canyon extremely difficult for the few families that remained.

Today you can take a jeep ride through the Canyon with a Navajo guide and he or she will tell you about the Anasazi ruins and the vibrant pre-historic culture which once dominated the region and then mysteriously disappeared. Your guide may also point out the cliff where Navajo warriors made a last, heroic stand against Spanish troops that sought to remove them from their home in the Canyon. It is only with some prodding, however, that you will

learn about the history of the people who live in the Canyon today, the changes in their lives and land over the past seventy years, their struggle to cope with a changing landscape as well as a transformed society, and their relationship with the foreign forces that shaped both of these things.

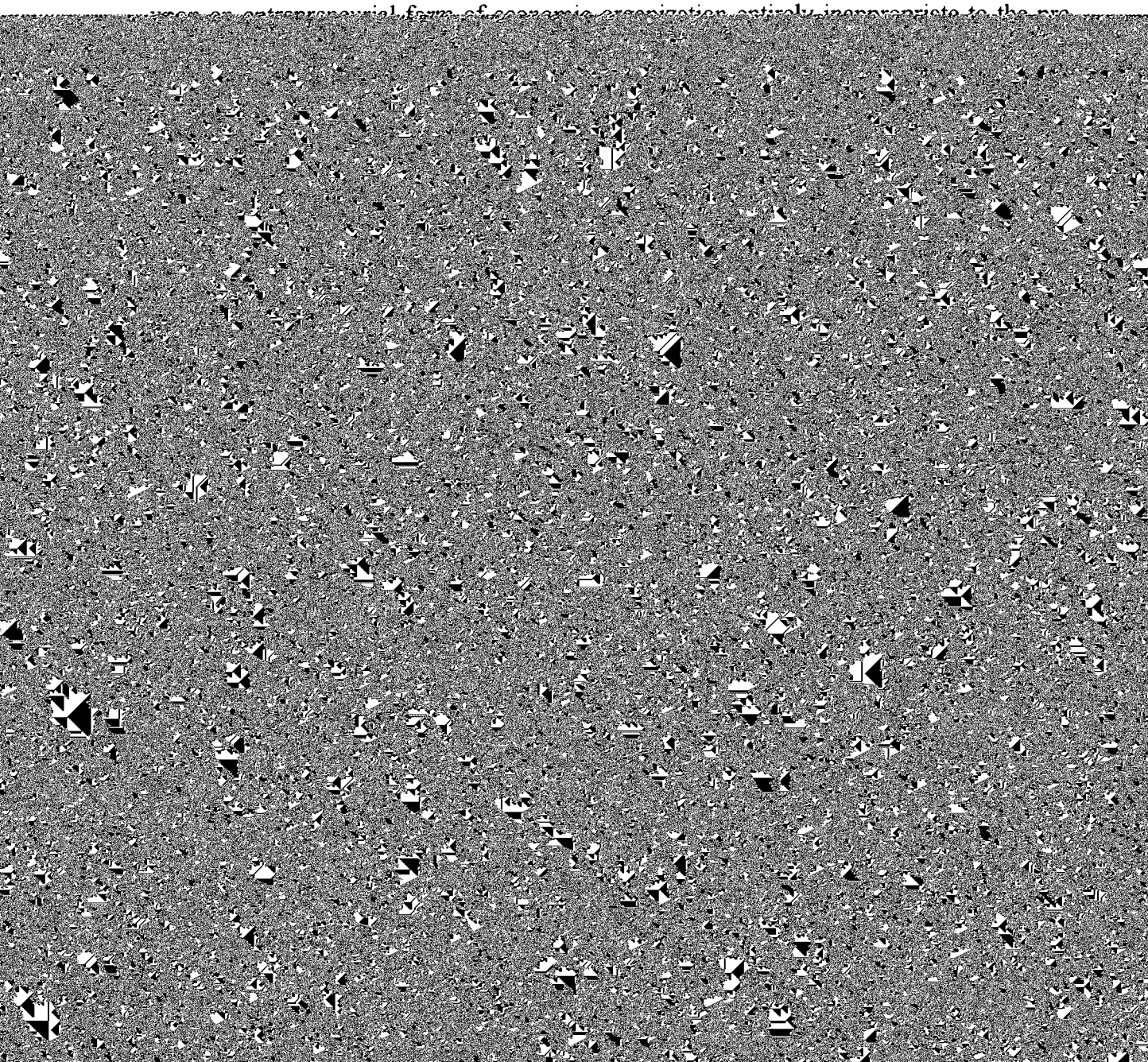
I am grateful for the assistance of a number of people in completing this project. First, I would like to thank the U. S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) for supporting this research. The staff at the National Archives, College Park, particularly Joe Schwarz; and the staff at the DC Reference branch of the National Agricultural Library. The staff of the Office of the Executive Secretariat, USDA, and Suzanne Schenckle, American Indian Liaison, NRCS for letting me poke through their files. Special thanks to Steve Charmichael who went above and beyond the call of duty to facilitate my research in Arizona and New Mexico and accompanied me on much of the trip; Jerry Hammond and J. Douglas Helms for supervising and encouraging this research. Jacques



Abbreviations

BIA	Bureau of Indian Affairs
NA	National Archives, Washington, DC and College Park, MD.
NAC-HQ	Files of the American Indian Coordinator, Headquarters, Washington, DC
NAC-SW	Files of the American Indian Coordinator, Southwest region, Pheonix, AZ
NRCS	Natural Resources Conservation Service, USDA (formerly SCS)
RG114	Records of the Soil Conservation Service, USDA
RG75	Records of the Bureau of Indian Affairs, USDOI
SCS	Soil Conservation Service, USDA
SES	Soil Erosion Service, USDA (precursor to the SCS)
TC-BIA	Project for Technical Cooperation with the Bureau of Indian Affairs
USDA	U. S. Department of Agriculture
USDOI	U. S. Department of the Interior

During the progressive era, a particular vision of utilitarian land use developed which largely ignored the human component of conservation. The conservationists' assumption that "efficiency"[1] was necessarily the best test of good land use, and was—because of its scientific nature—value-free, proved not only false but violently deficient in the case of the American Indians. The Federal conservationists' attempts at development, which were ignorant of or indifferent to the society and culture of the American Indians, used models based



do"[4] while also speeding the alienation of tribal lands and fragmenting Indian land holdings to such a degree that reconstructing contiguous land groups was often impossible later. According to a 1930 hearing on the *Survey of Conditions of Indians in the U. S.*, despite the fact that "In his primitive condition the only use the Indian had for land was as a hunting ground, and hence he knew nothing of land ownership as we understand the term..." American opinion held that "Since some of the eastern tribes had practiced a limited agriculture in a crude way, and a few tribes in the Southwest had even progressed to the extent that they practiced farming under irrigation, it was but natural to look to the land as a source of subsistence for the Indians."[5] However, according to the Natural Resources Board's 1935 study, about two-thirds of the American Indians were "completely landless or own insufficient land on which to make a living on a subsistence level....Many of the tribes have assets which are not in usable form through the checker boarding of the land by sale to white persons....Still others own land rendered practically unproductive through overgrazing, erosion, or destructive logging."[6]

The U. S. Government, in an attempt to rehabilitate and modernize the ailing economies of the reservations, encouraged farming and stock-raising and provided the basic tools for these pursuits. Ironically, in the Southwest, where American Indians had developed the most advanced indigenous farming techniques, stock-raising rapidly became the main endeavor. As the human population on the reservations expanded, so did the sheep, cattle and goat populations until the limited rangeland was severely overgrazed. In the eyes of the U. S. Government, the depletion of the range reduced the quality of the stock, lowering their market price, and requiring the American Indians to raise more animals to obtain the same eco-

[4] Department of the Interior, Bureau of Indian Affairs, *Indian Land Tenure, Economic Status and Population Trends; Part X of the Report on Land Planning*, Supplementary Report of the Land Planning Committee, Natural Resources Board (Washington, DC: USGPO, 1935).
[5] US Senate, Committee on Indian Affairs, *Hearings on the Survey of Conditions of Indians in the U. S.*, Part 6, 2232-2233.
[6] *Indian Land Tenure...*, 1.

nomic returns, introducing a vicious cycle of environmental depletion and economic depression. The Federal Government's solution was the controversial and ultimately devastating stock reduction program. A large part of the program's failure was due to the Government's inability to understand that the reduction of livestock was not just a technical or economic problem, but was bound up with Navajo social structure, culture, and perceptions of prosperity.[7]

A theory has been advanced, and contradicted, that the increase in stock raising on the Navajo Reservation coincided with a long cycle of climatic change which periodically

The erosion on tribal land led to siltation which clogged not only American Indian crop-land, but also threatened White irrigation and hydroelectric projects in the Southwest like Boulder Dam. Though it may be argued that concern for these projects engendered early attempts to solve the reservations' erosion problems, other factors likely took precedence. The crisis in land degradation, swiftly approaching irreversibility as a result of the concurrent over-grazing and climatic change on the reservations, coincided with a growing recognition of the problem that soil erosion presented for the future of American agriculture as a whole

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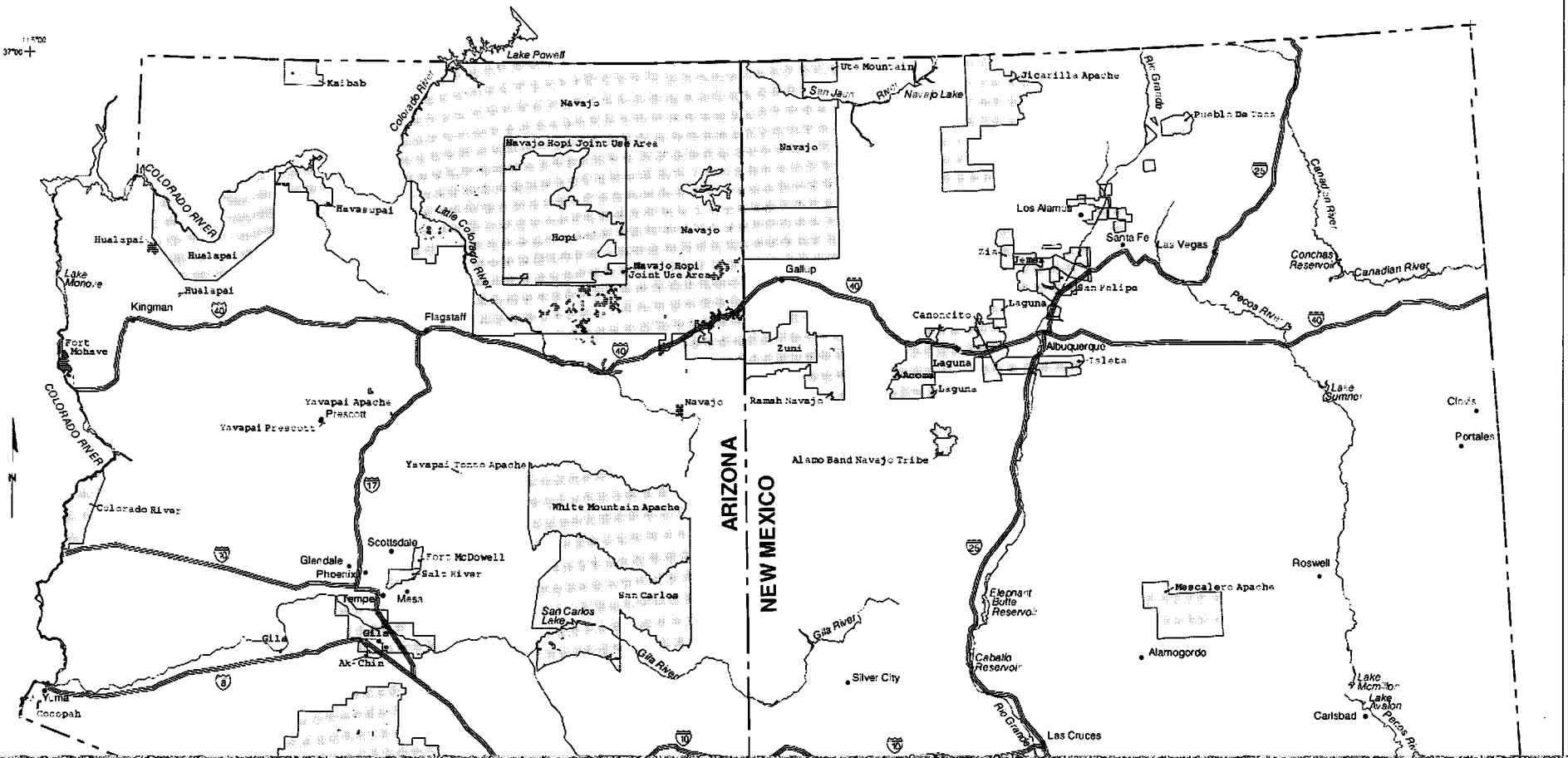


PART I: 1934-1939

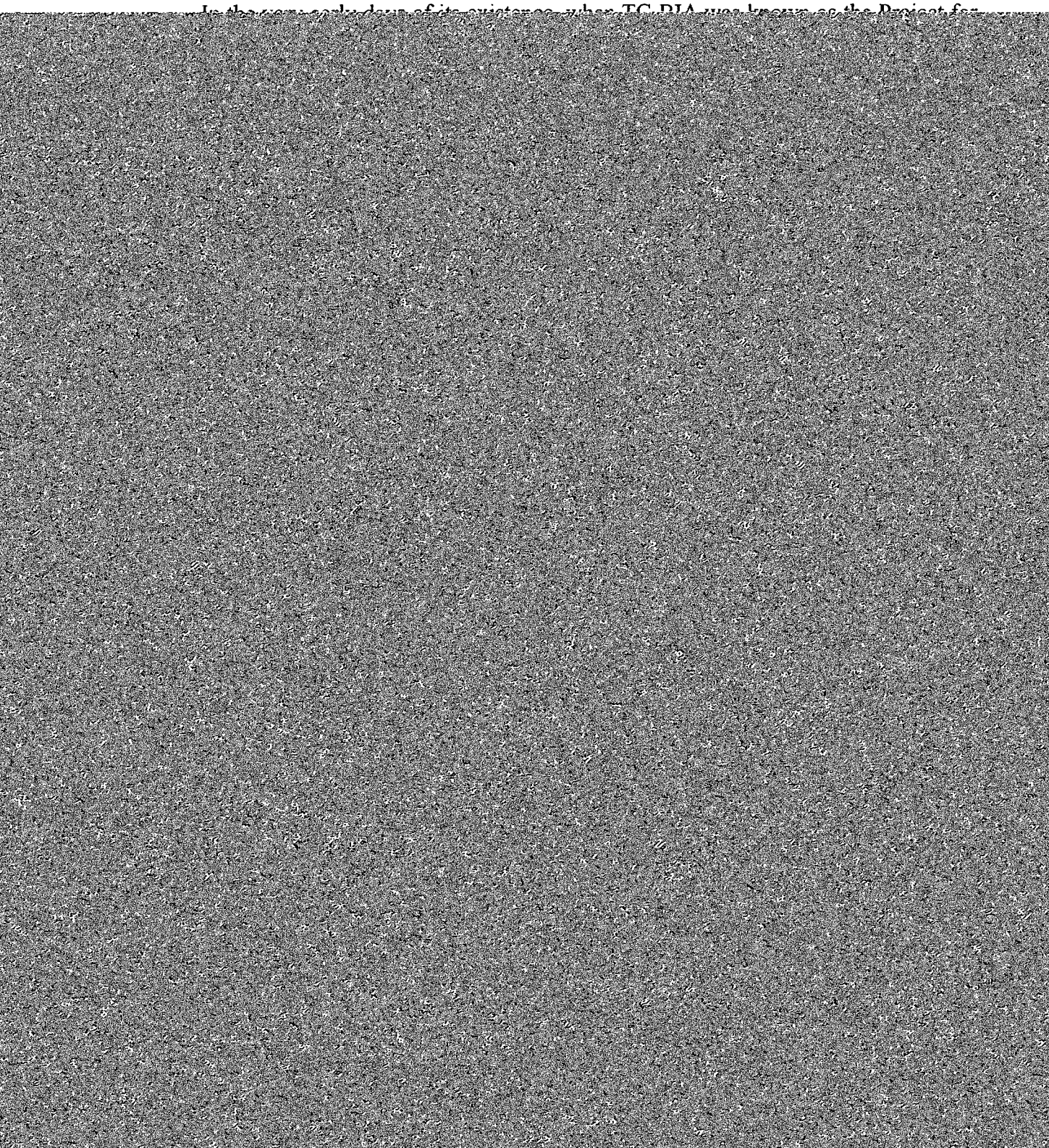
Creation of the SCS and TC-BIA

The election of Franklin D. Roosevelt to the Presidency and a majority of Democratic Senators and Representatives to Congress in 1932 created "conditions more favorable for the

In addition, the combined livestock and agricultural bases of the Navajo economy were "deeply imbedded in Navajo culture."[12] Thus, when the Soil Erosion Service, and its successor the Soil Conservation Service created in in 1935, began work on conserving the reservation land, they found that much more than cattle and sheep stood in the way of their conservation works. The basic assumptions that had functioned in other early soil conservation projects dealing with White farmers ceased to function in the special social and economic conditions of the reservation. The "reorientation of the entire agricultural-economic system of 45,000 Navajo Indians"[13] was not easily accomplished. Human problems and perceptions, the unsuspecting engineers soon found, were inextricably linked to erosion problems. At the same time, the problems of the American Indians in the Southwest were completely different from any that the Soil Conservation Service had encountered before; in fact, the SCS was largely unsure of just what their problems were. Detailed information on Navajo society, income and subsistence was not available in the early 1930s;[14] even as late as 1971, a Brookings Institute study of American Indians stated that "less socioeconomic information exists about the Indian than about any other minority group in the U. S.."[15]

To deal with the newly discovered problem of the American Indians, in 1935 the SCS and the Indian Service established a joint program called Technical Cooperation—Bureau of Indian Affairs (TC-BIA). TC-BIA was originally composed of four staffs: technical, educational, research-compilation, and "social-economic-ethnological" which dealt with the "human problems involved" in soil conservation. The Socio-Economic Survey Section, which enjoyed considerable interchange with the Human Dependency and Economic Survey Unit

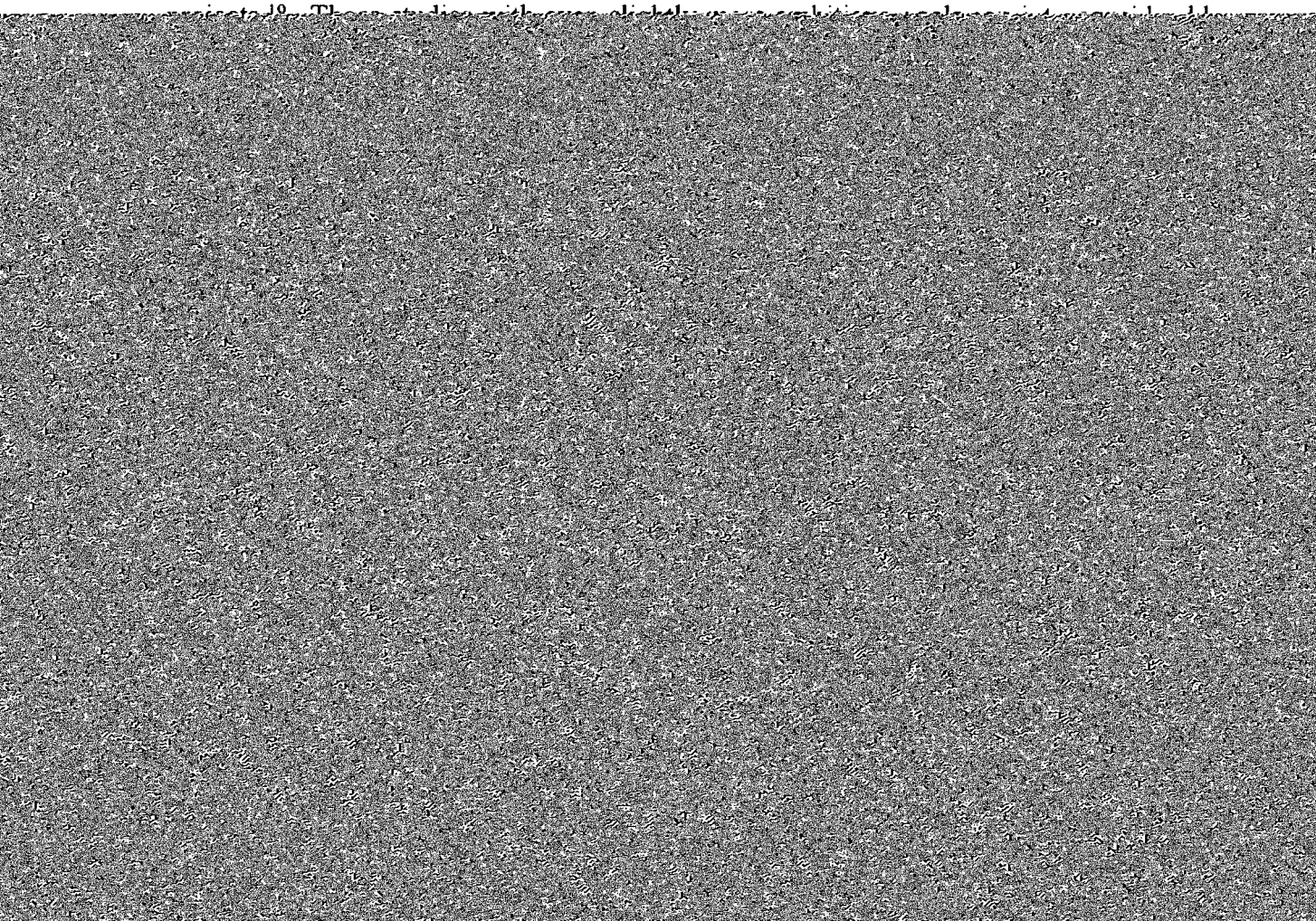
in SCS Region 8 and often used the same title, was organized to study the social and economic conditions and organization of the reservations in order to determine what programs of soil conservation were necessary and appropriate and how best to implement them. By the time TC-BIA was disbanded in 1939, its Socio-Economic Survey team had completed at least 22 studies of American Indian culture, society, and land use in four SCS Regions.[16]



reservation community" in order to "obtain an insight into the human possibilities of [the] culture,..." It was an doubtful proposition that one community could provide insight into the conditions and beliefs of all of the others. In all, Mekeel seemed to continuously emphasize the human failure of the American Indians in land degradation, viewing poor land use as a symptom of their culture, rather than their conditions.

Early social studies

Though the SES had employed rural sociologists on some early demonstration project studies, the goals and methods of their work had been quite different from those of social scientists studying the American Indians. The earliest social studies were largely perfomed by economists and were designed with the limited goal of showing the existing relationship between soil conditions and financial and physical resources of the farmers; population characteristics of the demonstration areas and their association with soil quality; and to establish basic material to be used in education.[18] Essentially, they aimed to show that the farmers who participated in the demonstration erosion control projects enjoyed an improvement in their standard of living over the five-year period of the initial project. Those studies were largely simple attempts to quantify benefits and costs to justify the early demonstration



the effort."[20] White and his staff were not even attempting to produce comprehensive studies of an essentially foreign culture, but to evaluate changes in the familiar pattern of rural Anglo-American life.

As socio-economic studies had been an important factor missing from the early demonstration projects on the Navajo Reservation,[21] it was natural that they would be of concern once formal cooperation between SCS and BIA was established. As early as the end of 1935, however, the USDA raised objections to the proposed inclusion of social and economic studies as a part of the TC-BIA program. The Secretary of Agriculture argued that the Indian Service was duplicating the studies, as well as some of the conservation projects for which TC-BIA would be responsible. The Bureau of Indian Affairs (BIA) had conducted a broad survey of Indian reservations in 1933 financed by the Civilian Works Administration (CWA). However, the CWA survey was brought to an abrupt end by the withdrawal of funds in 1934 leaving a number of the surveys incomplete. The studies had been intended to fill a function similar to that of TC-BIA's Socio-Economic Survey Unit, however, the BIA's reports tended to be either highly normative and general,[22] or compilations of tabular information with no sustained or convincing attempt to explain the data.[23] According to Lawrence Kelly's article, "Anthropology in the Soil Conservation Service," Milton Eisenhower also challenged the appropriateness of the human dependency surveys of the Indian population conducted by the TC-BIA, even questioning the legality of their funding through the SCS.[24]

[20] "Progress Report on Economic and Social Studies by Max R. White," [1934-1935 pre-SCS]; 221 Social and Economic Survey; Central Records, 1933-1935; RG 114; NA.

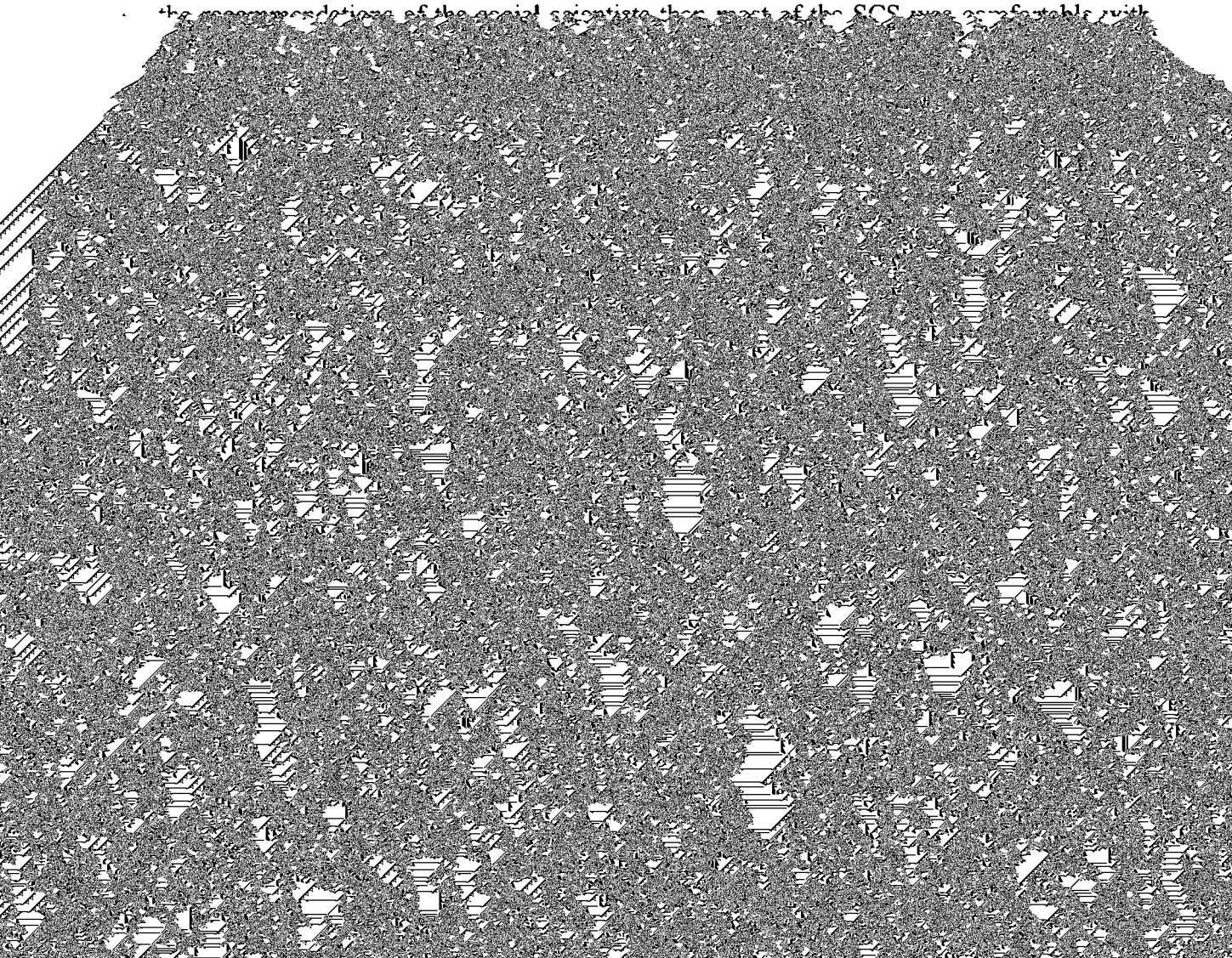
[21] For an excellent brief history of the early work on the Navajo Reservation see Lawrence Kelly, "Anthropology in the Soil Conservation Service," in *The History of Soil and Water Conservation*, Douglas Helms and Susan Flader, editors (Washington, DC: The Agricultural History Society, 1985).

[22] See Records of the Bureau of Indian Affairs, Record Group 75; Records Relating to Social and Economic Surveys; NA. Particularly "The CWA Social and Economic Survey of Selected Indian Reservations," prepared by Vance Rogers for the Indian Land Unit of the Natural Resources Board, October 1934 (released January 1935); NRB Compilation Survey, 1934; Box 1: Blackfeet to Coleville; Records relating to Social and Economic Surveys; RG 75; NA.

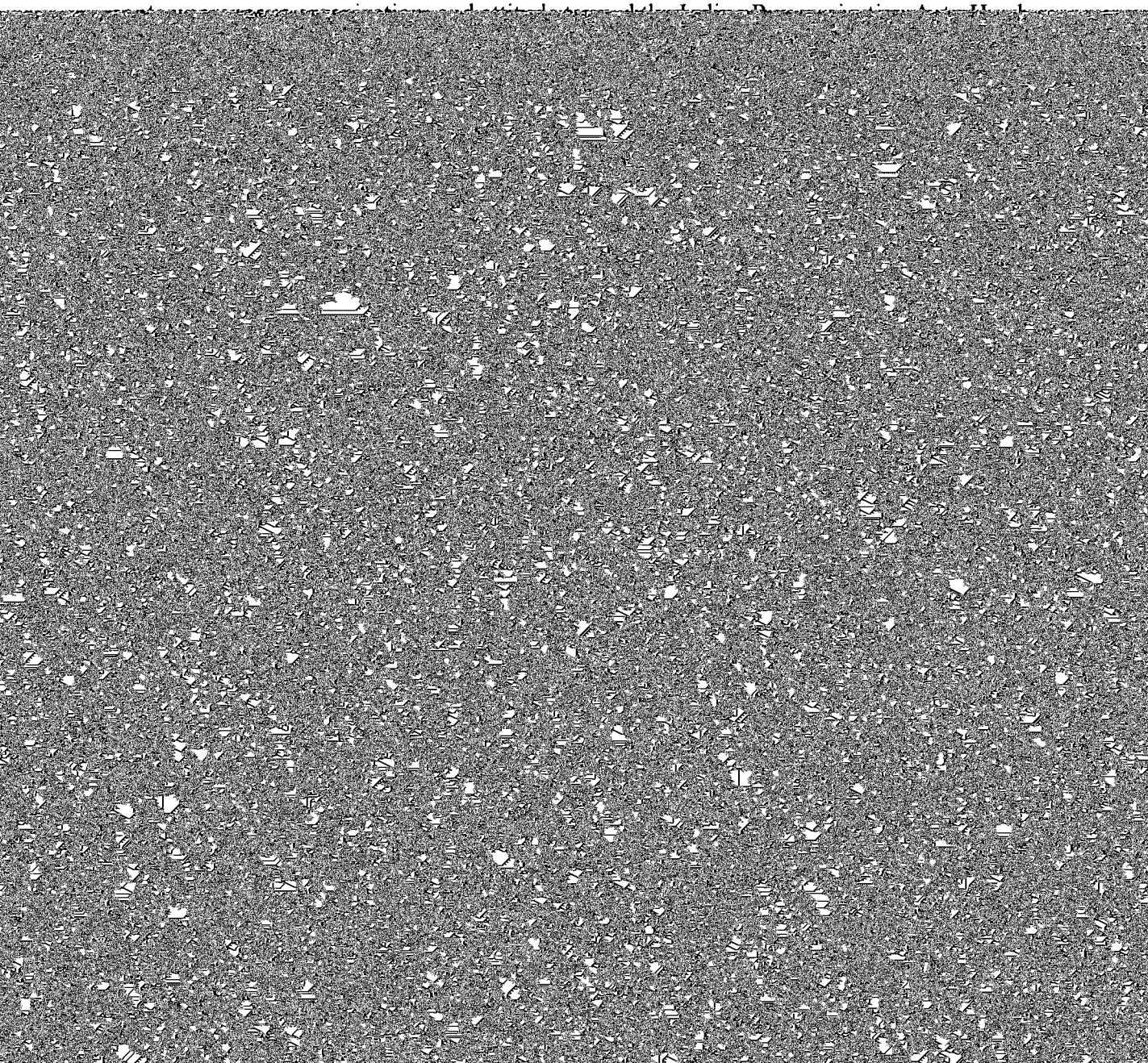
[23] See General Survey File; Records relating to Social and Economic Surveys; RG 75; NA. Especially "An

Collier asserted that the BIA did not have the resources to do justice to either the social research or the conservation projects, and he felt, based on the Navajo experience, that one without the other would be impracticable. He argued, contrary to the USDA, that the "social-economic aspect...is the essence of the soil conservation program....soil conservation is not merely a business of mechanical or botanical operations....It is a business of finding out how the land owners and the populations...can be enabled and persuaded to conserve their soil."[25]

Mekeel originally recommended appointing four "anthropological consultants" to perform sociological studies on the reservations. He advocated placing one on each of four reservations which would be selected in oder to make a "complete study of the contemporary socio-economic organization for that reservation, so that he would be able to give competent advice to the technical staff upon their arrival."[26] This approach placed more emphasis upon



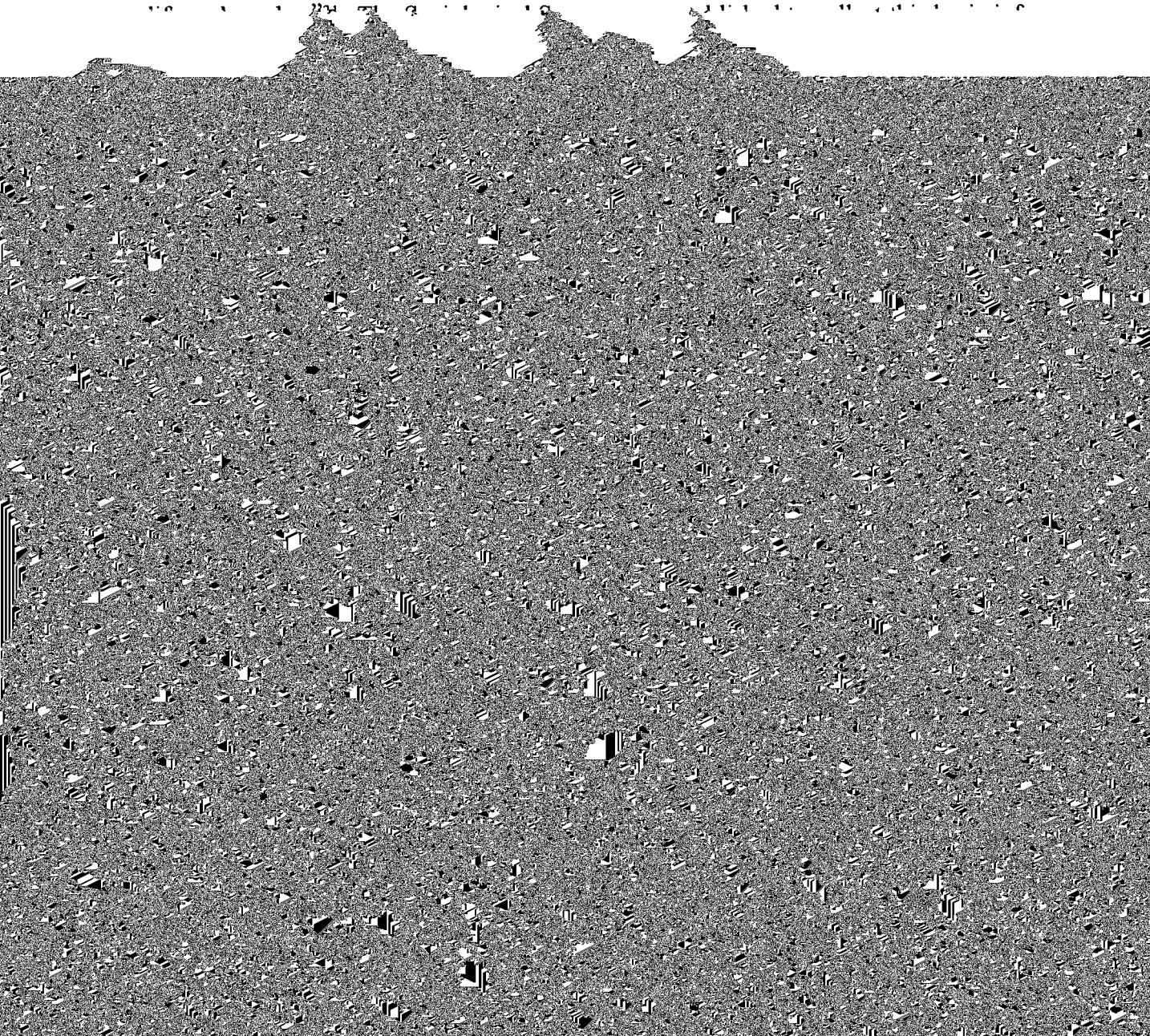
At almost the same time, John Pearmain and Walter Woehlke were attempting to construct a standard outline of work for the Compilation and Research Section of TC-BIA. Their work, although all secondary research, also focused heavily upon economic, social, and ethnological issues. They sought to use the facts gathered by the Bureau of the Census, the BIA's research, and other sources to provide a more holistic picture of American Indian life. Pearmain's detailed plans called for his reports to include information on Native populations and population trends; miscegenation; occupations; understudied economic pursuits like timber, arts and crafts, hunting, and small scale industry; housing and furniture; agricultural development; and tribal social and economic organization including early organization;



In order to accomplish this last goal, Woehlke asserted that "in almost every instance, the technically perfect plan must be modified so as to make possible its application and execution by the inhabitants of the area." Those modifications had to be based on "authentic knowledge of the affected population."[30] This authentic knowledge could only be acquired through the type of social studies that had been objectionable to the USDA.

Developing the human dependency and socio-economic surveys, 1936-1939

In May 1936, the studies of the human population of the Navajo Reservation, which had previously been conducted along with the land management surveys, were reorganized into an independent unit called the Sociological Survey of the Navajo Reservation. According to a 1937 SCS regional report, "...in spite of the scores of volumes of interesting and romantic information on dances, religion, mythology, dress, and general picturesqueness..." of the Navajo, there was an almost complete lack of information about their "real economic



economic issues, and so chose the term Sociological to represent an interdisciplinary approach to the "single problem of social behaviour."[34]

The survey team recognized that "The problem of continuous Navajo livelihood is more complex than a simple sufficiency of resources. If the Navajo are to have a continuous sufficiency of resources, the complex influences to which they are subject must be correctly evaluated."[35] In order to accomplish this, both the external and internal institutional influences on the Navajo economy would be evaluated with particular emphasis on the role of the white trader in the Navajo economy, the consumption group, group obligations, and the division of labor among groups.

The same month that the new survey unit's *Statement of Procedure* was published, Eshref Shevky[36] sent a memorandum to Hugh Calkins, the Regional Conservator for SCS Region 8, headquartered in Albuquerque, New Mexico, suggesting a broad reconnaissance study of the region. This effort would include the type of sociological studies that would become the hallmark of the short-lived Human Dependency Survey Unit of Region 8, as well as heavily influence the sociological work of TC-BIA.[37] At the time, Shevky was a part of the SCS Division of Regional Planning. Calkins concern for these specialized studies had begun much earlier, dating back to the problems on the Navajo project, [38] and he was receptive to Shevky's suggestions. Shevky aimed to follow the path he had begun in a BIA study of the Tewa Basin begun in 1935 and later completed and published as an SCS Regional Bulletin.[39]

[34] Ibid., p. 9.
[35] Ibid., p. 26.
[36] For Shevky's background see, Don Parman, *Navajos and the New Deal.*
[37] Eshrev Shevky, "Memorandum for Mr. Calkins on the Subject of a Reconnaissance Study of the South West Region," May 25, 1936; Rep. Survey; HD-Reports; TC-BIA General Files; RG 114; NA.
[38] Calkins to Bennett, November 2, 1934, letter on social and economic studies on the Navajo Reservation; 221 Economic Survey, October 1, 1934; Central Records, 1933-1935; RG 114; NA.
[39]Hugh Calkins, *Inventory of Material on the Rio Grande Watershed (An Evaluation of Surveys and Reports): I Tewa Basin Study.* Soil Conservation Service, Region 8; Regional Bulletin no. 34; Conservation Economic Series No. 7; February 1937, 2. The initial survey of the Tewa Basin was made by the BIA's Indian Research Unit in collaboration with the Forest Service and the SES in 1935. Many of the staff members also participated in the final study completed by TC-BIA in early 1937.

Conservation and Culture

The Tewa Basin Study was the crucible for the development of a number of important ideas about and methodologies for the analysis of the link between culture and environment

"developmental organization" and the connection with an administrative agency that would have made it less theoretical and more practical. Without the information or analysis that was necessary to understand land use, and how to achieve land-use adjustment on the reservation, the study failed the SCS's test of utility.

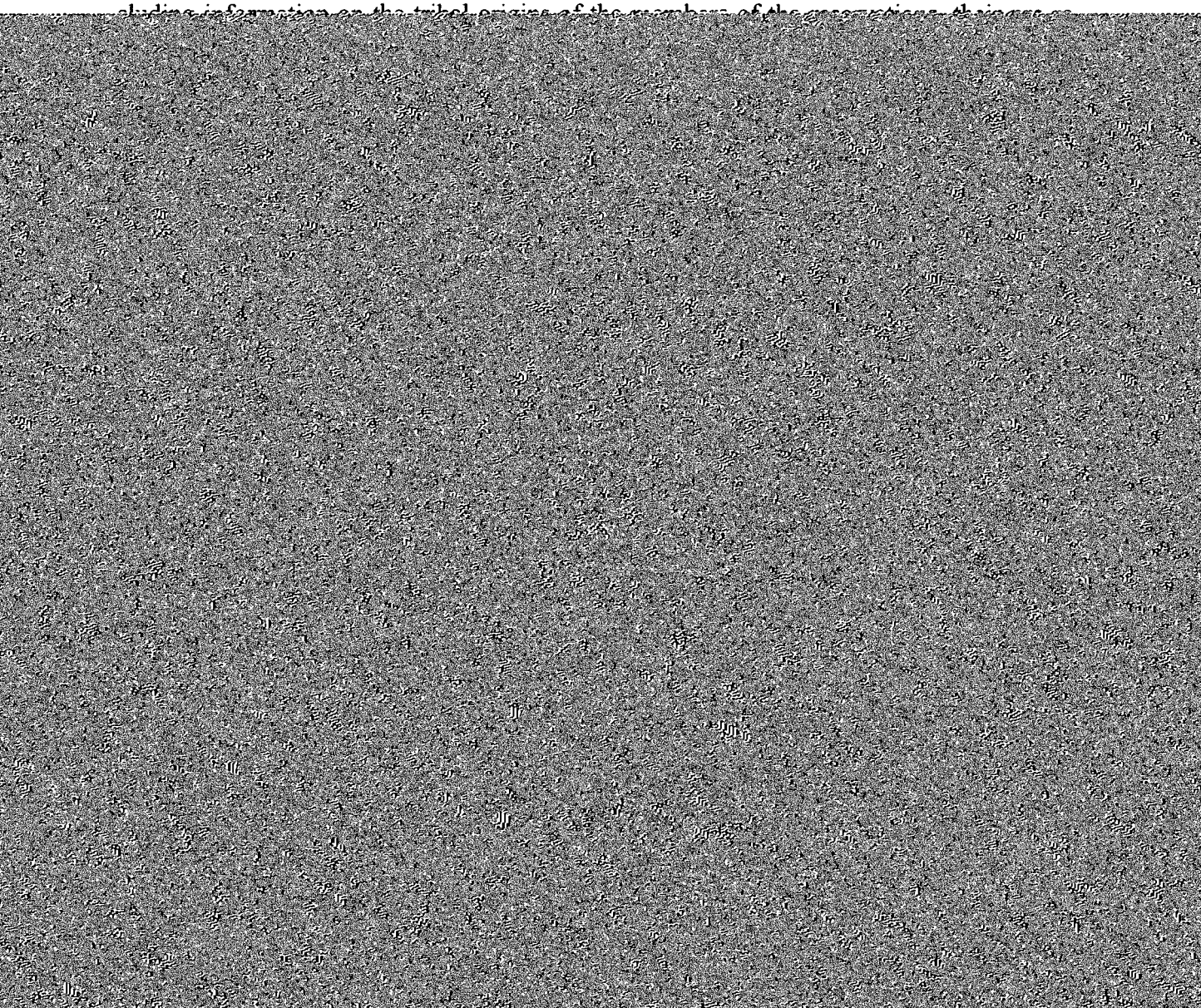
Despite these shortcomings, the Tewa Basin Study's proposals for the Santa Cruz Area had some impressive results. The proposals "differed in every essential respect from previous Government efforts in the area. In the first place, the plan recognized that the problems...did not result from the variations in human aptitude...but rather from the deterioration of resources in the area. Therefore the intended reconstruction was regional rather than individual."[45] However, the administrative reorganization that occurred shortly after the completion of the proposals precluded implementing them.

Negative racial characterizations of American Indians made the survey's work even more difficult and even more important to planning for conservation. As the Statement of Procedure pointed out, "Navajo agriculture has often been characterized as 'primitive'. From the term 'primitive' certain value judgments are drawn....This inference has apparently been so pervasive that little information exists on yields of Navajo crops under Navajo techniques of cultivation."[46] Without information on native techniques, TC-BIA and SCS suggestions on improving land use would be of little use. Another interesting example is a rare laudatory report of American Indian land use and management in Turtle Mountain, South Dakota. The physical reconnaissance report of the region noted that there was no significant erosion and that the Native farmers were "land conscious husbandmen" despite "tremendous social and economic problems" so severe that they suggested curtailing SCS involvement in the region.

[45] Ibid., 34.
[46] *Sociological Study of the Navajo Reservation: Statement of Procedure*, 22.

However, before complementing their farming, the report stressed that the tribe at Turtle Mountain had a lot of French blood among them, suggesting that this European ancestry explained their unusual farming skill.[47] Interestingly, these assumptions were challenged by

The Sacramento study argued that although American Indian society, social habits, and psychology, their "past and present cultural position", were not quantifiable, they were "of equal importance with statistics on income or on land and its utilization..." and were in fact "the main...underlying causes of such statistical reflections of their economic life."[51] The problem, as TC-BIA defined it, was that the basic resources of the American Indian's land were incapable of supporting the population. Further depletion and erosion of the already poor land was worsened by "complicated land-ownership patterns, mal-distribution of resources, lack of Indian community organization and incentives, the physical condition of the Indians and the maladjustment of their relations to the social and economic framework of the state in which they are compelled to function."[52] Following this assumption, the survey team compiled an extensive history of the reservations in the Sacramento Jurisdiction, including information on the tribal origins of the members of the reservations, their ac-

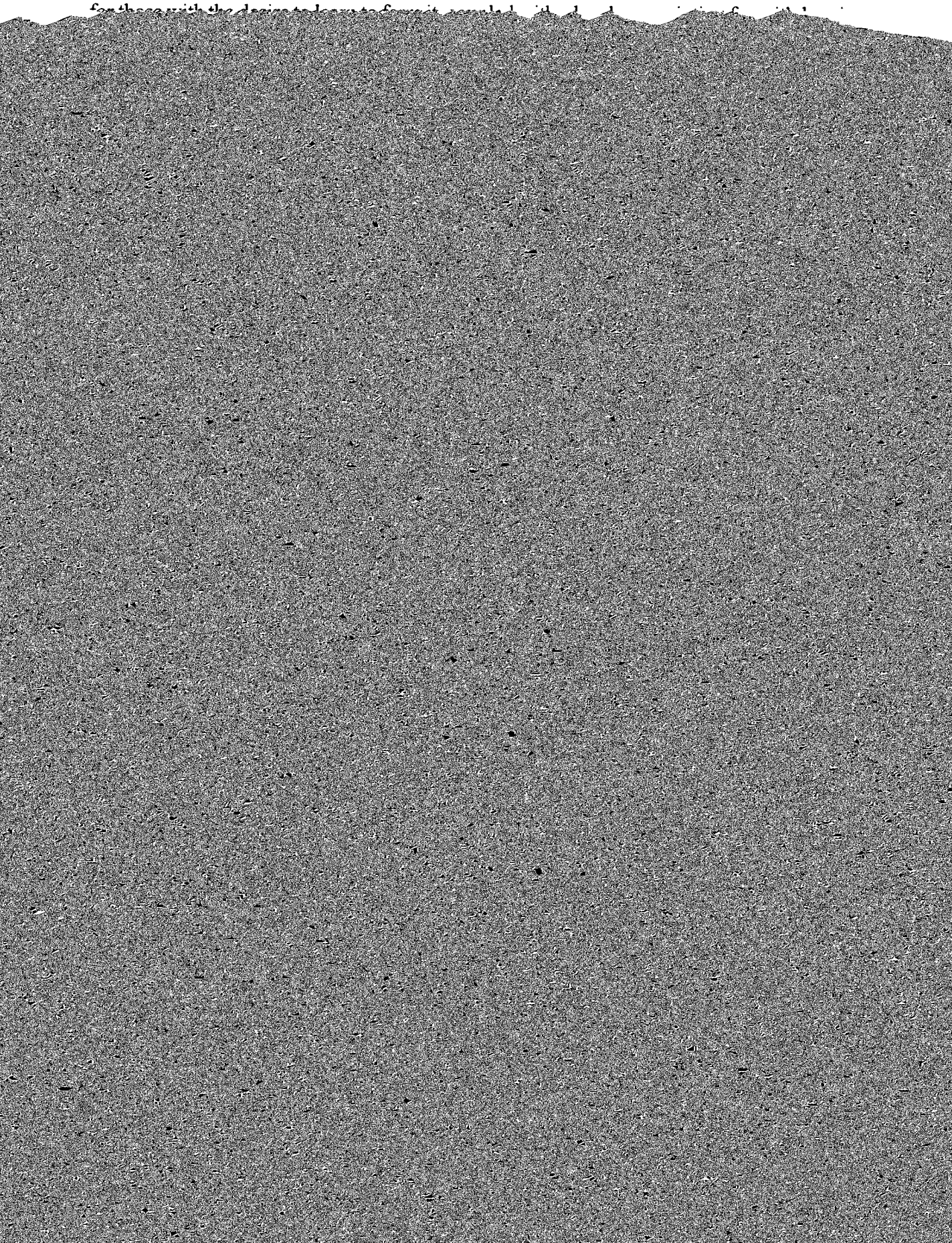


for 8 hostile tribes, placed there that Whites might occupy their lands in peace." From 1906 to 1927 rancherias, either as miniature reservations or as simple land purchases, were established for the homeless American Indians. The grants of land were "shockingly inadequate....To the philosophic and social compulsion towards incorporation into White communities...was added the most effective and compelling condition of establishing amounts of land which by every standard could not, except in a few cases, support a living."[54] According a Resettlement Administration report, only about 5% of the American Indian land had good agricultural, timber or grazing value, and about 10% was fairly productive. The rest of the land, 85%, was desert or valueless. The dire situation "led to privation among the Indians and abuse of the land resources which, in turn,...resulted in...cultivation of...'sub-marginal land', overgrazing, erosion, lack of irrigation water or misuse of such water, high relief loads, and poverty among the Indians."[55]

As a result of their inadequate lands, the American Indians were dependent upon seasonal labor to sustain their livelihood. A system similar to tenant farming in the South developed which approached debt peonage: seasonal laborers would borrow from their employers in the winter to meet their basic needs for food and fuel, the summer months would be spent working to pay off the debt acquired. Despite the problems with the wage-labor system, the surveyors contended that it fit more closely with the rhythms of traditional Indian cultural patterns than did agriculture. However, the depression had led to an influx of white laborers which increased competition for these low paying jobs. The result of this loss in cash income was "chronic under-nourishment and disease and...living at the lowest subsistence level."[56] The end recommendations of the Survey suggested a combination of contin-

[54] Ibid., 12.
[55] Ibid., 17.
[56] "T.C.-B.I.A. Land Use Survey - Sacramento Indian Agency," attached to "Land-use and Conservation Surveys California Indian Reservations," [December 1936]; SE General; TC-BIA General Files; RG 114; NA.

ued wage work for some and the provision of adequate community-owned agricultural land



its own right...accepted and executed planning for and administration of resources on the area which it claim[ed]." As a result, though the SCS had not recognized it earlier, the "required leadership and responsibility to assume the burden of correct land use practices is already present in the community."[61] The SCS found that it encountered much less resistance when it addressed the land use problems of the region on a small scale, rather than through the titular reservation leaders and broad, general policies.[62]

The work of the Human Dependency and Sociological Surveys had some real impact within the SCS, and by 1938, the *Navajo District Annual Report* asserted that there was "a closer realization on the part of the Soil Conservation Service and Indian Service personnel that the land management problem on the Reservation is in significant part a human one." It was clear that "stock adjustment, agricultural development, and conservation operations" would be impossible without consideration of the people who used and depended on the land, their values, their culture, and their priorities.[63]

[61] Ibid., 23. The accuracy of this observation is illustrated by the success of the recent programs which allow (and demand) local initiative and planning rather than imposing outside plans for development and use